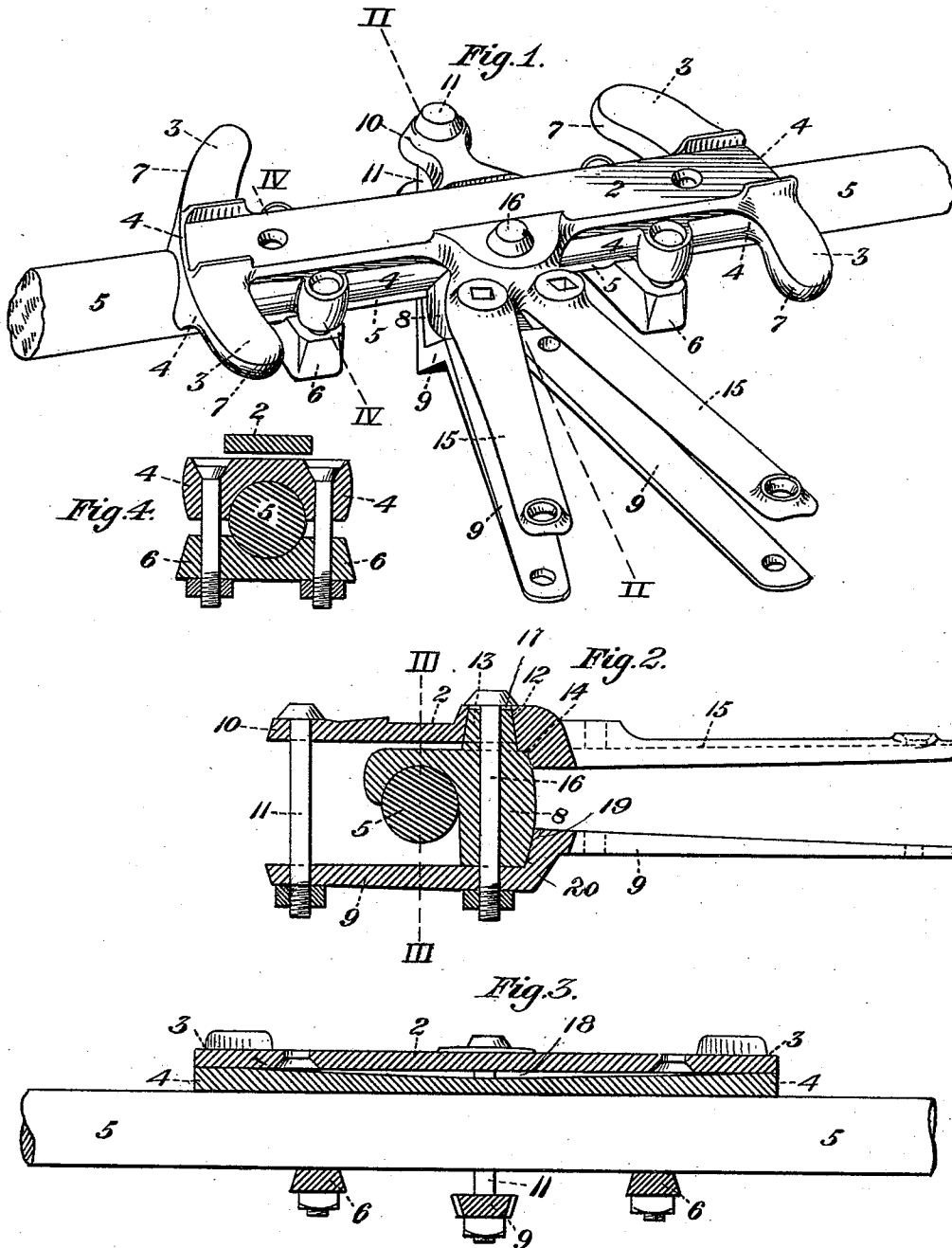


(No Model.)

J. J. FETZER.
FIFTH WHEEL.

No. 459,360.

Patented Sept. 8, 1891.



WITNESSES
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JAMES J. FETZER, OF COLUMBIANA, ASSIGNOR TO THE HERBRAND
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FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 459,360, dated September 8, 1891.

Application filed January 26, 1891. Serial No. 379,197. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. FETZER, of Columbiana, in the county of Columbiana and State of Ohio, have invented a new and useful Improvement in Fifth-Wheels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my improved fifth-wheel. Fig. 2 is a vertical section on the line II II of Fig. 1. Fig. 3 is a vertical section on the line III III of Fig. 2, and Fig. 4 is a vertical section on the line IV IV of Fig. 1.

Like symbols of reference indicate like parts in each.

My invention relates to an improvement on the fifth-wheels described in the following patents of Jacob Herbrand: No. 244,599, dated July 19, 1881, and No. 277,725, dated May 15, 1883.

In the drawings, 2 represents the top plate of the fifth-wheel, having bearing-lugs 3, forming a segmental upper circle-plate, and 4 is the bottom plate, on the under side of which the axle 5 is set and is held fast by clip-yokes 6. The bottom plate has bearing-lugs 7, which correspond to and fit against the lugs 3 on the top plate and is provided with a boss 8, extending downwardly back of the axle and resting on a seat in the lower reach-iron 9, which extends forwardly from said seat and is connected with a lug 10 on the top plate by an upwardly-extending arm or bolt 11, which may be made in the same piece with the reach-iron. The top plate has a socket 12, which fits around a vertically-projecting stud 13 on the boss 8 and back of and below said socket is formed with a shoulder 14, which has a bearing against the rear top portion of said boss, thus bracing the top plate and preventing it from tipping on the stud 13. Back of the shoulder 14 a reach-iron 15 extends rearwardly and in substantially the same plane with the top plate above the correspondingly-shaped lower reach-iron. The king-bolt 16 extends vertically through the stud 13, the boss 8, and the lower reach-iron, as shown in Fig. 2.

The fifth-wheel so constructed possesses advantages as respects strength, compactness of structure, and cheapness. By having the reach-iron 15 in substantially the same plane with the top plate and integral therewith I am enabled to dispense with the usual axle-bed. When the axle-bed is desired to be used, the lower reach-iron should be curved downwardly under the axle, (more than shown in Fig. 2,) so as to make room for the axle-bed. By extending the bottom plate in the form of the boss 8 down to and giving it a firm seat and lateral bearing on the lower reach-iron I am also enabled to support the lower reach-iron perfectly without an axle-plate, which is substituted in function by said boss 8. I thus reduce the number of parts to a minimum and obtain a cheap, strong construction.

It is obvious that the wear of parts occurs almost exclusively between the top and bottom plates at the intersection of stud 13 with socket 12 and upon bearing-lugs 3 and 7 of top and bottom plates, respectively. To take up this wear I provide for thorough adjustment of said plates with relation to each other. Owing to the conical form of vertically-projecting stud 13 on the bottom plate, it readily accommodates itself to wear in the walls of socket 12 in top plate, adjustment-space 17 being left above for this purpose, while for the same reason adjustment-space 18 is provided between the top and bottom plates 2 4, immediately over the axle and between the two sets of bearing-lugs 3 and 7, as shown in Fig. 3. Wear having occurred between these parts, they are drawn snugly together by king-bolt 13 and bolt 11, thus preventing noise or rattle, and, being retained in their proper relative position by two bolts, the parts are prevented from wearing unevenly. It will be observed, further, that boss 8, together with its stud 13, presents a most excellent bearing for the top plate 2 and lower reach-iron 9, both of which turn upon it and find thereon lateral as well as end bearings, the top plate having its end bearing on the beveled sides of stud 13 and its lateral bearing upon the rear top portion of boss 8, which engages shoulder 14 in the top plate, while reach-iron 9 has a firm end bearing upon the lower extremity of

said boss 8 and a lateral bearing against the rear side thereof, the latter being snugly seated in the curved recess 19, formed in angle 20 of the reach-iron, from which point said
5 iron extends rearwardly.

I claim—

In a fifth-wheel, the combination of a bottom plate clipped to the axle, inclined from bearing-lugs to center on its upper surface
10 and having a downwardly-projecting boss, a top plate with rearwardly-extending reach-iron having an adjustable conical bearing and

a lateral bearing on said boss, a lower reach-iron having a lateral bearing against the rear of the boss and a bearing on the bottom thereof, and a king-bolt passing through the top plate, boss, and lower reach-iron. 15

In testimony whereof I have hereunto set my hand this 16th day of January, A. D. 1891.

JAMES J. FETZER.

Witnesses.

LEWIS J. DEEMES,
JOHN G. BEATTY.